

(19)



JAPANESE PATENT OFFICE

## PATENT ABSTRACTS OF JAPAN

(11) Publication number: **03188367 A**(43) Date of publication of application: **16.08.91**

(51) Int. Cl.

**G01N 27/30****A61B 5/0408**(21) Application number: **02001051**(22) Date of filing: **09.01.90**(30) Priority: **28.09.89 JP 01250772**(71) Applicant: **AGENCY OF IND  
SCIENCE & TECHNOL  
MITSUBISHI PENCIL CO LTD**(72) Inventor: **KANEKO HIROKO  
YAMADA MASAHIRO  
SHIGEMATSU SEIJI  
NEGISHI AKIRA  
KAWAKUBO TAKAMASA  
SUDA YOSHIHISA****(54) CARBON MICROELECTRODE AND  
MANUFACTURE THEREOF****(57) Abstract**

**PURPOSE:** To improve the reproducibility of measurement by extruding and molding a composite material wherein crystalline fine carbon powder and organic caking material are dispersed and combined in a thin wire shape, thereafter baking the material in an inactive atmosphere at high temperature, carbonizing the incorporated organic caking material, and using the obtained pure composite carbon thin wire as a working electrode.

**CONSTITUTION:** A composite material wherein crystalline fine carbon powder and organic caking

material are dispersed and combined undergoes extrusion molding for obtaining an intended thin-wire shape. Then, the material is baked in an inactive atmosphere or in a non-oxidizing atmosphere to high temperature. The incorporated organic caking material is carbonized, and a pure composite carbon thin wire is manufactured and obtained. This wire is used as it is, or the wire which is impregnated with oil is used as a working electrode. The organic caking material is a mixed material of one kind or two or more kinds of organic macromolecular material and its monomers/oligomers, tars/pitches, dry-distilled pitches, thermoplastic resin, the initial polymers of thermosetting resin, and the like.

COPYRIGHT: (C)1991.JPO&amp;Japlo

**BEST AVAILABLE COPY**